

to the turbidity of the outflowing wort.

Page 1, after the first full paragraph, please add a new centered heading as follows:

Background of the Invention

Page 1, please delete the second full paragraph and substitute with the following:

Such a method for controlling the flow of wort when brewing beer is known e.g. from German Offenlegungsschrift DE 43 24 157 A1. In this method, the actual wort flow is measured and compared with a predetermined desired wort flow. In dependence upon the difference between the actual wort flow and the desired wort flow, the opening of a turning vane and the height of a raking machine are controlled. A wider opening of the control valve will normally lead to an increase in the actual wort flow. A grain bed which has settled on the settling bottom of the lauter tun or clarifying vat is broken up by lowering the raking device; this leads to an increase in the actual wort flow as well. In order to achieve the shortest possible lautering or clarifying time, the desired wort flow is increased in steps with a constant gradient during a trending phase. If, during the trending phase, the desired wort flow increase can be achieved neither by opening the turning vane still further nor by lowering the raking machine because the turning vane is e.g. completely open and because further lowering of the raking machine is not desired, the desired wort flow will be decreased. When the actual wort flow remained constant for a predetermined time or has even increased, the desired wort flow will again be increased in steps with the original gradient.

Page 2, please delete the second full paragraph and substitute with the following:

Although it is impossible to achieve a reduction of the lautering time by the method described in Offenlegungsschrift DE 43 42 157 A1, the lautering or clarifying process still remains, also in the case of this method, the wort-production process which requires the longest time and which should therefore be shortened with regard to a further reduction of the

brewing period resulting in a higher number of brewing steps per unit time. This should be done without impairing the wort quality. Furthermore, it is desirable that it should, as far as possible, not be necessary to adapt a controller and a method for controlling the flow of wort from a lauter tun or clarifying vat to various types of beer, feedstock compositions, compositions of rough-ground material, mash consistencies and lauter tun charges. On the contrary, the controller and the method should adapt automatically to a great variety of types of beer, feedstock compositions, etc., by taking into account important parameters.

Page 2, after second full paragraph, please insert a new centered heading as follows:

Summary of the Invention

At page 2, please delete the fourth and fifth full paragraphs.

At top of page 4, please insert a new centered heading as follows:

Brief Description of the Drawings

Page 4, after description of Figure 9, please insert a new centered heading as follows:

Detailed Description of the Invention

Page 4, please delete last paragraph of page with carryover to page 5, and substitute with the following:

Fig. 1 shows a device in which the controller according to the present invention and the method according to the present invention are preferably used. The device comprises a lauter tun or clarifying vat 1, which can be arranged on a support, not shown, so as to provide below the bottom 2 of the lauter tun 1 a space for installing a driving device 3 as well as a lifting and lowering unit 4 for the raking machine 5 arranged within the lauter tun 1. The drive motors for the lifting and lowering unit as well as for the rotary movement of the raking machine are designed by reference symbol M. The raking machine 5 is provided with a drive shaft 6 which is supported such that it is rotatable as well as axially displaceable. The upper

end portion 7 of the drive shaft 6 has secured thereto a plurality of horizontal arms 8 which are equally spaced from one another in the circumferential direction and which each support several raking knives 9 for a grain bed settling as a residue on the settling bottom 10 of the lauter tun 1 during the lautering or clarifying process. The lower end portion 11 of the drive shaft 6 of the raking device is in engagement with the driving device 3 and the lifting and lowering unit 4.

Page 6, please delete the first full paragraph and substitute with the following:

After the control valve 16, the lauter wort 25 flows through a lauter or clarifying vessel 19, a throttle valve 21, a lauter pump 26 and a turbidity sensor 27. The throttle valve 21 is preferably implemented as a butterfly valve. The controller 17 controls the lauter pump 26 and, via a controlling element 22, the throttle valve 21 so as to control the discharge of lauter wort from the lauter vessel 19. If this discharge can be controlled in a sufficiently precise manner by the lauter pump alone, e.g. by repeatedly switching the lauter pump on and off or by controlling the lauter pump speed, the throttle valve 21 and the controlling element 22 can be dispensed with in accordance with another preferred embodiment. For the purpose of pressure compensation, the lauter vessel 19 is additionally connected to the lauter tun 1 via a balance pipe 24. By controlling the flow of wort from the lauter vessel 19, the level of the wort 20 in the lauter vessel 19 can be controlled independently of the amount flowing in. The difference between the water level in the lauter tun 1 and the lauter wort level in the lauter vessel 19 generates a pressure difference which forces the water in the lauter tun through the grain bed that has settled on the bottom of the lauter tun. It follows that this differential pressure and, consequently, the actual wort flow from the lauter tun 1 can be controlled by varying the level of the lauter wort 20 in the lauter vessel 19.

Page 6, please delete the second full paragraph and substitute with the following: